REMARKS

In response to the Office Action of June 16, 2004, Applicants have carefully considered the rejections of the Examiner in the above-identified application. In light of this consideration, Applicants believe that the claims as amended remain allowable. Applicants respectfully request reconsideration of the rejection of the claims now pending in the application.

In the first Office Action of March 31, 2003, claims 1-3, 9, 13, and 14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over co-pending patent 09/362,022. Claims 1-3, 9, 13, and 14 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,555,557 to Mailloux (hereinafter Mailloux). Claims 4-8, 10-12, and 15-17 are rejected under 35 U.S.C. §103(a) as being obvious over Mailloux and further in view of the Applicants' cited well-known art.

In the second Office Action of September 29, 2003, claims 1-17 are rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 9 and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,818,504 to Chung et al. (hereinafter Chung). Claims 1-3 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 4,847,641 to Tung and in further view of Chung. Claims 4-8 are rejected under 35 U.S.C. §103(a) as being obvious over Tung and in further view of Chung and further in view of the Applicants' cited well-known prior art. Claims 10-12 and 15-17 are rejected under 35 U.S.C. §103(a) as being obvious over Chung and further in view of the Applicants' cited well-known prior art. Claim 14 is rejected under 35 U.S.C. §103(a) as being obvious over Chung and further in view of U.S. Patent No. 6,181,438, to Bracco (hereinafter Bracco).

In this third Office Action of June 16, 2004, claims 1-17 are rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 1-3, 9, and 13-14 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,740,330 to Abe (hereinafter after Abe) and in further view of U.S. Patent No. 5,299,308 to Suzuki et al. (hereinafter Suzuki). Claims 4-8 10-12, and 15-17 are rejected under 35 U.S.C. §103(a) as being obvious over Abe and in further view of Suzuki and further in view of prior art.

Claims 1-17 are rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant's regard as the invention. The Examiner finds it unclear whether the original pixels have already been halftoned, prior to substituting or embedding the auxiliary pixels, or whether the invention claims to substitute auxiliary pixels so as to remove halo problems or edge displacement prior to halftoning the image cell.

Those skilled in the art will understand, given a read of the specification, particularly the first paragraph of the specification as found on page 1, lines 16-18, where it is stated "The present invention relates to improving images produced by utilizing digital halftones or spatial dithering in *electrostatographic* printers and reprographic copiers", that the technology area to which the Applicants' teaching is directed is in the electrostatographic (also referred to as electrostaticgraphic) arts and thus is directed to the employment of electrostatic charge to render toner particles and the like, upon a substrate. In such system it is well understood by those skilled in the art that a picture element (pixel/pel) is necessarily limited to a bilevel pixel. That means

toner/ink/etc. is either there (present), or not there (not present) in rendering an image bitmap, which equates nicely to the zeros and ones used in digital systems.

The "IBM Dictionary of Computing" 10th edition, copyright 1994, ISBN number 0-07-031488-6, on page 307 defines:

halftoning The method of representing a gray image as a cluster of bilevel pels.

In the world of IBM they use the term "pel" to mean "pixel". The rest of the world uses the term "pixel" for picture element. So as should be evident, the term "pel" equates to "pixel":

The "IBM Dictionary of Computing" on page 504 defines:

pel Picture element.

The "IBM Dictionary of Computing" on page 512 defines:

pixel Picture element.

Thus a halftone cell is comprised of pixels just as is stated in the Applicants' claim 1, and utilized, explained and employed in the Applicants' specification and drawings. The pixels are bilevel, does that help? The *Pixels are not halftoned!* The halftone cell is made up of pixels. Figure 7 of the Application is an example of three halftone cells all at the same grayscale value. Each pixel there, is either on or off. Figure 9 provides another halftone cell at another grayscale level, albeit with auxiliary pixels added (substituted) around the fully on pixels present at that given grayscale level. Nowhere in the specification do the Applicants' discuss "halftoning the image cell" or use "image cell"!

In deference to the Examiner we have amended claims to an electrostatographic system in hopes of focusing the examination. This amendment does not narrow or change the claims and is considered completely innocuous. We never-the-less hope it helps. An Application MUST be written for

those skilled in the art. The Application is as clear as can be if read following along with the drawings close at hand. Frankly, we are unable to guess further at what is allegedly unclear and can only beg the Examiner to please call the attorney Christopher Wait at (585) 423-6918. He may be better able to explain that which remains unclear though the benefit of direct verbal interaction.

Copies of pertinent pages of The "IBM Dictionary of Computing" are being included as attachments with this Amendment in hopes of clarifying that which is well understood by those skilled in the art.

Removal of the rejection of claims 1-17 under 35 U.S.C. §112 second paragraph is respectfully requested.

Claims 1-3, 9, and 13-14 are rejected under 35 U.S.C. §103(a) as being obvious over Abe and in further view of Suzuki. Abe teaches how representative points are added to peripheral pixels in every black pixel groups. The thus generated representative points are joined by a curve-fitting approximation method to obtain an outlined curve for every black pixel group. One pixel is divided into a multiple number of sub-pixels. Pulse signals supplied to a laser is modulated on pulse width so that the sub-pixels (hatched section) belonging to the inside of each curve may be exposed to laser beams. However, Abe as is properly pointed out by the Examiner, does not teach Auxiliary pixels.

Suzuki teaches how the tones (or densities) of individual edge pixels of vector data are determined by first dividing each edge pixel into subpixels, after which the thus-determined tones are fed to a laser printer or other output unit. Advantageously, the present invention smooths jagged edges by performing an anti-aliasing process. To achieve this smoothing of graphic data, any of a variety

of filters, each having particular weights, are used for the process of dividing edge pixels into subpixels.

Suzuki does not teach Auxiliary pixels. Suzuki does teach subpixels which print. They call it "paint", please see column 11, line 19 "to determine subpixels which should be painted." Auxiliary pixels do not print, as is explained in the Application in a number of places including page 8, lines 7-8, and lines 19-31, being but two examples. Thus Suzuki clearly fails to provide what Abe lacks, a teaching of Auxiliary pixels. Therefore, a prima facie case of obviousness under 35 U.S.C. §103(a) has not been made out.

Allowance of claims 1-3, 9, and 13-14 is respectfully requested.

Claims 4-8, 10-12, and 15-17 are rejected under 35 U.S.C. §103(a) as being obvious over Abe and in further view of Suzuki and further in view of prior art. As claims 4-8, 10-12, and 15-17 depend from independent claims believed to be allowable these dependent claims should be allowed as well.

Allowance of claims 4-8, 10-12, and 15-17 is respectfully requested.

It is respectfully submitted that the present set of claims are patentably distinct over the cited references. In the event the Examiner considers personal contact advantageous to the disposition of this case, she is hereby requested to call the undersigned attorney at (585) 423-6918, Rochester, NY.

Respectfully submitted,

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Attachment: "IBM Dictionary of Computing", pp. 307, 504, 512, 66 and 511.